Software Version Description

(SVD)

for the ECPN System

Contract No. F19628-93-D-0019
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Prepared for:

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Date _____ Date _____

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3.0 Changes Installed

The following is a description of each software change integrated into ECPN Versions 1.0.5 and 1.0.6.

Version 1.0.5

1. Implemented automatic creation of remote user /etc/password entries and user directories.

2. Changed the colors for the "NUM" labels to match the log listing and to maintain their separate columns.

3. Added message status counts to the Message Log window.

4. Removed fields (TOT, Out Channel) and menus (Search, Print operations, Xmit) for Ilogs.

5. Removed fields (GS, to/from, Grp Ctrl #, type, trans ctrl #, solicit #) and menus (Search, Print operations) for Ologs.

6. Added hourglass window for operations that are prolonged.

7. Added libraries to Set, Get and Check the system "Alert Level". This is a run-time configurable level that defines what severity of alerts are reported. The actual calls to inject the alert were inserted in the applications and servers. Currently, those places are:

   - X12 Envelope validation
   - Site ID verification
   - Other generic decode errors
   - Channel dies (in Pcm)
   - No AF match found for an outgoing message
   - In/Out archive failed
   - UDF/X12 Translation failed
   - Icm queue wraps faster than Mpr can decode (in Mpr)
   - Various comms alerts
   - IcmAppendLog fails in Gis

   Also added the UI to set the Alert Level. When an alert is reported, it has a level associated with it. The alert is injected only if the system is running at or above the level of the alert.

8. EmailSend has been modified to use the Comms Cycle value.

9. The Comms Cycle field in the Edit window for the interfaces has been changed to accept/display values in seconds (instead of minutes). The minimum value is 10 seconds and the maximum value is 18399 (one second short of 24 hours).

10. The Configure Interface window has been widened to display all of the labels correctly.

11. In the SegTerm DB, all references to VAN in the UI have been changed to NODE.

12. Fixed transmit and message logging bugs for the ftp interface.

13. DTG Conversion clean-up:

    - Removed seconds from the DTG format and adjusted the edit field accordingly.
    - Fixed bug where the EditFields run together.
    - Added -debug.

14. Increased the length of the Purchase Order field to 22 characters.

15. Made batch message handling improvements to handle partial messages.

16. Increased the length of the Solicitation Number field to 45 characters.

Version 1.0.6

1. Defined the relational database and provided for an injection mechanism. Provided a model for flow control to separate the message handling from the database interface. This will prevent dataflow backup due to Oracle being down for backup, update, etc.

2. Added REINJECT capability for the Ilog.

3. In the Olog, fixed an inconsistency problem when messages are xmitted or re-xmitted. Some fields in the original Mlog were not carried over to the new transmitted mlog (ex. ISA #).

4. Provided a mechanism for automatic creation of new message logs vice wrapping and overwriting entries.

5. EmailSend, NEPComms, and FtpComms now have the ability to function as queue clients to Ocm. They maintain the ability to operate with directory polling. The default when running one of these interfaces is to operate as a queue client.

6. Outgoing messages for FTP channels can now be shown with a new status. This status is CON FAIL in the status field of the Outgoing log. A new header has been added to the OLOG as well. This header is NUM CON FAIL. This header and all messages with the CON FAIL status will be displayed in yellow. The status occurs when the FTP channel can process the messages but is unable to put them on the remote machine (failed login, bad permissions on files or directories).

7. Made EmailRecv a Gis client instead of a CheckLogin feed. Even though received email is considered passive, the ECPN still controls its input through EmalRecv - so it should go to Gis to avoid the delay of CheckLogin.

8. The Email channel now uses sendmail directly so that errors can be interpreted.

9. The Email interfaces can now handle batching messages. All messages being sent to a particular addressee in an interface cycle will be batched into one mail message and mailed out. The exception to batching messages is on a UDF type channel. To send UDF messages on an EMAIL channel, they must be sent as multiple files.

10. Changed the timestamp to send a TOR for each file instead of each batch of files.

11. Changed Gis to handle messages that were being processed when Gis went down and messages sent to Gis from the interfaces when Gis is down.

12. Added an interface to Gis to handle reinjection of messages.

13. Modified CheckLogin to use the file creation time for the TOR of the messages in a file.

14. The Edit Channels window now displays the MSG TYPE.

15. Any channel that is configured to use UDF's cannot use BATCH transfer.

16. EmailTable UI displays case-sensitive letters in the initial window.

17. Performance improvements implemented for message decode.

18. EmailRecv can not handle the large X12 messages received.

19. The temporary sockets that were left in the /usr/tmp directory were removed.

20. Clients can now connect to Gis on 10.00 with DNS.

21. Added the ability to archive the Mlog fields and raw data into Oracle.

22. Added the MMI for performing queries on the Oracle database.

23. Added the capability to store the original raw archive filename in the mlog structure.

24. Warning windows in UI's now only come up when -OK- is clicked, not every time the focus leaves the widget. The applications that had this problem are:

    - Msg Report DB - Add/Edit
    - Remote User DB - Add/Edit
    - Email Table - Add/Edit

25. Warning windows have been added to the Seg Term DB DELETION and REPLACEMENT windows. The warnings appear for blank entries and invalid entries (outside the range 000 to 177).

26. Fixed edit problem in the Alert Notification DB.

27. The EmailTable entries now require a username and host.

28. The Email channel edit window has been modified to be consistent with the other channel edit windows. The fields are now NAME, XREF, NODE TYPE, INTERFACE, MACHINE, MSG TYPE, AUTOSTART, and COMMS CYCLE in the top box. The bottom box remains unchanged.

29. The Remote User DB entries now have unique IDs.

30. Mail sent out the email interface now identifies the sender from the Remote User DB.

Table of Contents

1.0 Scope

This Software Version Description (SVD) applies to applies to Electronic Commerce Processing Node (ECPN), which is a Computer Software Configuration Item (CSCI) of the system identified as Electronic Commerce/Electronic Data Interchange (EC/EDI). This document follows the standards set forth in *Military Standard Software Development and Documentation* (MIL-STD-498) and in the Data Item Description (DID) for a Software Version Document (DI-IPSC-81442), as tailored by Inter-National Research Institute (INRI).

1.1 Identification

The system identifier for ECPN has not yet been assigned. This document applies to Version 1.0.6.2 of the software. The purpose of ECPN is to provide NEP/Gateway enhancement to a platform environment that has more capability and functionality. The enhancement must ensure interoperability, economies of scale, and compliance to standards by the Department of Defense (DoD) and Federal Program Management Office (PMO). The current NEP and Gateway architecture and functionality are to be merged and redesignated as an ECPN.

1.2 System Overview

ECPN is being developed by INRI specifically for the EC/EDI system. The role of ECPN is to enhance the current EC/EDI NEP/Gateway system. The fundamental objectives of this effort are to:

- Maintain rigorous accountability end-to-end within the NEP/Gateway processing, with no single point of failure that could cause loss or non-delivery of data.
- Automate the processes required to place DISA EC/EDI into a high-volume production environment, including periodic automated reconciliation mechanisms to ensure that no deliveries are missed.
- Eliminate the UNIX® scripts and provide enhanced functionality in executable code.
- Enhance NEP/Gateway functionality by providing a transition from batch store/forward capability to single transaction mode.

- Implement basic ORACLE® RDBMS archival capability.
- Provide for backup archival, information retrieval, usage reporting, and audit trails.
- Provide basic retransmission and recovery as well as status monitoring.
- Provide for automated notification of communication failure and restoration.

1.3 Document Overview

The purpose of this document is to identify and describe the changes made to the ECPN CSCI in Version 1.0.6.2. (For descriptions of these changes, see Section 3.3.) This VDD also identifies any software problems that were corrected by the changes made in Version 1.0.6.2.

The following is an overview of each section of this SVD:

Section 1	Scope	States the purpose of the EC/EDI system; describes the role of ECPN within EC/EDI; and states the purpose of this SVD.
Section 2	Referenced Documents	Lists the documents applicable to this SVD.
Section 3	Version Description	Provides descriptions of the changes made to ECPN for Version 1.0.6.2.
Section 4	Notes	Defines the acronyms and abbreviations used in this SVD.

2.0 Referenced Documents

The following documents are referenced in this SVD. In the event of a later version of a referenced document being issued, the later version shall supersede the referenced version.

- *Data Item Description - Software Version Document* (DI-IPSC-81442), 5 December 1994.
- *Military Standard Software Development and Documentation* (MIL-STD-498), 5 December 1994.

3.0 Version Description

The following subsections describe ECPN Version 1.0.6.2.

3.1 Inventory of Materials Released

The following physical media and associated documentation make up ECPN Version 1.0.6.2:

- One tape containing ECPN software.
- Software Version Description (SVD) for the ECPN System, Version 1.0.6.2.

The following items are not part of this ECPN delivery but are required to operate ECPN Version 1.0.6.2:

- One standard operating system tape, HP™ -UX Version 10.00.
- Motif® Version 1.2
- The X Window System™ Release 5

3.2 Inventory of Software Contents

This section has been tailored out.

3.3 Changes Installed

This section provides a description of each software change integrated into ECPN Version 1.0.6.2.

1. Added context-sensitive help features to all UI applications.

2. Made the following UI enhancements:

   - Increased the size of the Information field in the Alert Log.

   - Specified the valid character types for entries in the Batch File Transfer and Remote In/Out directories. Only alphabetic (A-Z), single digit (0-9), underline (_), hyphen (-), and period (.) characters are permitted.

   - Added additional filename checks to FtpComms.

   - Added the Outgoing Byte Count field to the Ologs.

   - Added a field to the Ologs and Ilogs that indicates whether the raw data associated with a log entry has been edited.

3. Fixed a problem that caused Ocm to die.

4. Made fixes to incoming message pre-processing.

5. Made enhancements to the alert package.

6. Made improvements to error handling for the Cleo® interface.

7. Stabilized dial-out comms.

8. Included memory error prevention for the X12 decoders and X12 router.

9. Made fixes and improvements to the Stats Server.

10. Completed some ORACLE RDBMS interface work.

11. Made improvements to the dial-out command file.

3.4 Adaptation Data

The ECPN CSCI is the same for all sites. Adaptation of ECPN software is completely driven by configuration files. All adaptation data is stored in files that are read by ECPN when configuring the system for a site. These configuration files are resident on the tape used in the initial installation process.

3.5 Related Documents

This section provides a list of each document pertinent to the ECPN CSCI (in addition to this SVD). The most recent version of each document is indicated by the document control number and date in parentheses after its title.

- *Electronic Commerce Processing Node (ECPN) User's Guide, Version 1.0.6.1* (ECPN UG.5), February 1996.

- *Software Design Description (SDD) for the ECPN System, Version 1.0.6* (ECPN SDD.2), February 1996.

- *Software Development Plan (SDP) for the ECPN System*, (not yet released).

- *Software Requirements Specification (SRS) for the ECPN System, Version 1.0.6* (ECPN SRS.2), February 1996.

- *Software Test Pla*n (STP) for the ECPN System, Version 1.0.6 (ECPN STP.2), February 1996.

3.6 Installation Instructions

In the future, instructions for installing the ECPN CSCI will be provided in the ECPN System Administration Manual.

3.7 Possible Problems and Known Errors

Possible problems and known errors in ECPN Version 1.0.6.2 are identified in Section 3.3.

4.0 Notes

The following acronyms and abbreviations appear in this document:

CSCI	Computer Software Configuration Item
DID	Data Item Description
DISA	Defense Information Systems Agency
DoD	Department of Defense
EC/EDI	Electronic Commerce/Electronic Data Interchange
ECPN	Electronic Commerce Processing Node
Ilog	Incoming log
INRI	Inter-National Research Institute
NEP	Network Entry Point
Ocm	Outgoing communications manager
Olog	Outgoing log
PMO	Program Management Office
RDBMS	Relational Database Management System
SDD	Software Design Description
SDP	Software Development Plan
SRS	Software Requirements Specification
STP	Software Test Plan
SVD	Software Version Description